

CLAIMS

What is claimed is:

Sub A²

1. A method of forming a trim part having an outer surface exposed to an interior of a motor vehicle and an inner surface for attaching the trim part to an interior sheet in a motor vehicle, the method comprising:
 - providing a substrate having a first side and a second side;
 - disposing the substrate in a molding tool, wherein the molding tool has an upper mold and a lower mold;
 - engaging the first side of the substrate with the upper mold;
 - engaging the second side of the substrate with the lower mold;
 - compression molding the first side of the substrate such that the first side forms the outer surface of the trim part; and
 - injection molding an attachment surface to the second side of the substrate such that the second side forms the inner surface of the trim part, wherein the attachment surface has at least one attachment bosses extending from the attachment surface to attach the trim part to the interior sheet.
2. The method of Claim 1 further comprising the step of:
 - providing a gate on the lower mold;
 - attaching at least one surface runner to the gate;
 - injecting a resin through the gate into the surface runner;
 - directing the flow of the resin through the surface runner to the second side of the substrate;
 - forming the attachment surface by injection molding the resin on the second side of the substrate.
3. The method of Claim 2 further comprising curing the resin to form the attachment surface extending from the second side to attach the trim part to the interior sheet.

4. The method of Claim 2 wherein the resin is a polypropylene resin.
5. The method of Claim 1 wherein the attachment surface extends along a periphery of the second side of the substrate.
6. The method of Claim 1 further comprising injection molding ribs on the second side of the substrate, the ribs extending perpendicular to the attachment surface.
(6.) The method of Claim 5 further comprising forming the ribs adjacent to the attachment bosses on the second side of the substrate.
7. The method of Claim 1 further comprising selecting the substrate from a group consisting of natural fiber/Thermoplastic composite or a woodstock/thermoplastic composite material.
8. The method of Claim 1 further comprising the step of pre-heating the substrate to a temperature in the range of 380 F to 410 F before disposing the substrate on to the molding tool.
9. The method of Claim 1 further comprising simultaneously compression molding the first side of the substrate and injection molding the attachment surface on the second side of the substrate.
10. The method of Claim 1 wherein the attachment bosses are thermoformable locating bosses and heat stack bosses extending from the second side to attach the trim part to the interior sheet.